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Industry and Agriculture in the U.S.S.R.

BY VERA MICHELES DEAN

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# Industry and Agriculture in the U.S.S.R.\*

BY VERA MICHELES DEAN

*with the aid of the Research Staff of the Foreign Policy Association*

OFFICIAL launching of the third Five-Year Plan on January 1, 1938 coincided with the third year of a far-reaching Soviet purge, designed to extirpate Left and Right opposition elements charged with conspiracy against the state.<sup>1</sup> This purge, whose motives and methods have provoked widespread controversy in Western countries, brought to a close another epoch of the Bolshevik revolution. It signified the triumph of Joseph Stalin, who had opposed both Trotzkyist and Bukharinist "deviations" from the party line, and had advocated rapid "building of socialism in one country." Elimination of the "old guard" Bolsheviks opened the way to a period of political and economic reorganization under the unchallenged direction of Stalin and his closest associates, with the apparent support of the young generation, which has only academic knowledge of the men and events of 1917.

Fulfillment of Stalin's program, which included a rapid tempo of industrial construction and wholesale collectivization of agriculture, imposed heavy sacrifices in terms of human lives and frequent waste of machinery and raw materials. Yet it succeeded—at a heavy price—in providing the country with a technical basis for the simultaneous development of modern industry and agriculture, thus liberating the Soviet Union from dependence on the outside world. This position of independence may prove an asset at a time when Nazi Germany is summoning Europe and Asia to unite in a crusade against communism—although it may be argued that Nazi-inspired isolation of the U.S.S.R. might have proved far more difficult if the Soviet government had developed important economic ties with the Western democracies. Hitler's anti-Communist crusade, which serves as a pretext

for Nazi plans of expansion to the East, has won adherents among conservatives in France and Britain, who hope to preserve peace by coming to terms with Germany and isolating the Soviet Union. The tendency to exclude the Soviet government from European councils has in turn been strengthened by fear in France and Czechoslovakia that the purge may have jeopardized the military and industrial resources of the U.S.S.R. and weakened its position as a world power. In view of the controversy aroused by the purge, it seems timely to examine the economic development of the Soviet Union since 1928, when the first Five-Year Plan went into operation, and the extent to which this development may have been affected by the political shake-up of the past two years.

## FIRST AND SECOND FIVE-YEAR PLANS

In 1917 the Bolshevik leaders assumed control of a predominantly agricultural country, which had suffered a severe economic breakdown during the World War. Industry, agriculture and transport were in a state of disorganization bordering on chaos. In these unfavorable circumstances the Soviet government undertook the task of transforming Russia from a backward agrarian country into a modern industrial state organized on socialist lines. This transformation was intended to accomplish three principal aims: liberate Russia from dependence on advanced industrial states for capital and manufactured goods; establish a basis for the collaboration of industrial workers and peasants in a socialized economy; and eventually enable Russia to attain and, if possible, surpass the economic level of capitalist countries like the United States and Germany.

Such comprehensive transformation, according to Lenin, could be successfully achieved only by a proletarian dictatorship under a system of planned

\*Problems of labor and management in the Soviet Union are discussed in the June 15 issue of *Foreign Policy Reports*.

1. "Pravo-Trotzkistskaya Banda-Shpionov i Ubiitz" (Right-Trotzkyist Band of Spies and Murderers), *Planovoye Khozyastvo* (Planned Economy), organ of the State Planning Commission, 1938, No. 2, p. 1.

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## STATE BUDGET OF THE U.S.S.R. FOR 1937\*

	REVENUES	(in thousands of rubles)
1. Turnover tax	76,795,400	
Including:		
Peoples Commissariat of Heavy Industry	8,860,000	
Peoples Commissariat of Light Industry	11,382,000	
Peoples Commissariat of the Food Industry	20,387,000	
(exclusive of Central Alcohol Admin- istration)		
Central Alcohol Administration	6,190,000	
Agricultural Produce Purchasing Commit- tee under the Council of Peoples Com- missars of the U.S.S.R.	24,106,000	
State Trade Organizations	2,605,000	
Cooperative Organizations	1,682,000	
2. Profit tax		
a. Enterprises of the Peoples Commissariat of Heavy Industry	1,331,030	
b. Enterprises of Peoples Commissariat of Light Industry	829,100	
c. Enterprises of Peoples Commissariat of Timber Industry	37,000	
d. Enterprises of Peoples Commissariat of Food Industry	1,800,100	
e. Enterprises of Peoples Commissariat of Local Industry	542,905	
f. Enterprises of Peoples Commissariat of Agriculture	40,480	
g. Enterprises of Peoples Commissariat of State Farms	30,700	
h. Railway transport	687,700	
i. Enterprises of the Peoples Commissariat of Home Trade	174,950	
j. Agricultural Produce Purchasing Committee under the Council of Peoples Commissars of the U.S.S.R.	58,750	
k. Enterprises of the Peoples Commissariat of Foreign Trade	37,510	
l. State credit institutions	245,000	
m. State insurance organs	319,000	
n. Other tax paying organizations	169,950	
	6,304,175	
3. TOTAL revenues from profits		
4. Income tax and other taxes from enterprises and organizations:		
a. Tax on no-commodity operations (income from services)	390,370	
b. Income tax from collective farms	530,000	
c. Tax from State Farms	45,895	
d. Miscellaneous	6,640	
	972,905	
4. Returns from State social insurance for social and cultural measures	3,700,000	
5. State loans:		
a. Loan subscriptions	4,375,000	
b. Savings banks	1,200,000	
c. State insurance	400,000	
	5,975,000	
TOTAL on state loans		
6. TOTAL individual taxes and assessments	2,645,000	
7. TOTAL of other revenues	1,677,020	
	98,069,500	

## EXPENDITURES

(in thousands  
of rubles)

A. National economy:	
1. Industries of the Peoples Commissariat of Heavy Industry	6,217,420
2. Industries of the Peoples Commissariat of Defense Industry	2,328,790

\*Moscow Daily News, January 14, 1937.

3. Industries of the Peoples Commissariat of Light Industry	1,603,700
4. Industries of the Peoples Commissariat of the Timber Industry	1,274,660
5. Industries of the Peoples Commissariat of the Food Industry	1,042,450
6. Industries of the Peoples Commissariat of Local Industry	375,633
7. Cinema Industry	163,330
8. Various industrial construction jobs	391,530
	12,397,513
9. Agriculture under the Peoples Commissariat of State Farms	2,064,280
10. Agriculture under the Peoples Commissariat of Agriculture	6,994,870
	9,059,150
	TOTAL expenditures on agriculture
11. Central Administration of Forest Protection and Afforestation under the Council of Peoples Commissars of the USSR	390,310
12. Peoples Commissariat of Railways	4,698,610
13. Peoples Commissariat of Water Transport	1,133,540
14. Central Administration of the Northern Sea Route	579,900
15. Central Administration of Highways of the Peoples Commissariat of Home Affairs	830,900
16. Central Administration of the Civil Air Fleet	301,180
17. Peoples Commissariat of Communications	545,990
18. Volga construction job	200,100
19. Moscow Canal construction	242,820
	8,533,040
	TOTAL expenditures on transport and communications
20. State trading, supply and purchasing organizations	3,035,780
21. Peoples Commissariat of Foreign Trade	19,720
22. Reserves Committee	1,687,600
23. Moscow Subway	458,350
24. Central Administration of the Hydro-Meteorological Service under the Council of Peoples Commissars of the U.S.S.R.	128,640
25. Other expenditures on national economy	3,875,504
	39,585,607
	TOTAL expenditures on national economy
B. Social and Cultural Measures	26,604,552
a. Under the State Budget directly	10,870,116
b. Under local budgets	15,734,436
Including	
1. Education	18,269,806
2. Public Health	7,528,146
3. Physical culture	96,752
4. Social security and labor protection	709,848
C. Peoples Commissariat of Defense of U.S.S.R.	20,102,240
D. Peoples Commissariat of Home Affairs	2,699,390
E. Peoples Commissariat of Justice and the State Prosecutor's Office	149,300
F. Administration expenditures	1,618,622
G. Service on State Loans	2,579,000
H. Accounts with long term credit banks	1,382,100
I. Reserve funds of the Council of Peoples Commissars of the U.S.S.R. and the Council of Peoples Commissars of the Union republics	1,855,000
J. Other expenditures	543,689
Including under local budgets	199,062
Total	97,119,500
Excess of revenues over expenditures	950,000
	98,069,500
	GRAND TOTAL

ANNUAL RATE OF INCREASE OR DECREASE OF OUTPUT OF CERTAIN ESSENTIAL ARTICLES DURING  
2ND FIVE-YEAR PLAN FOR WHICH 1937 STATISTICS ARE AVAILABLE\*

(Figures in some cases are approximate)

Products	1933	1934	% increase over 1933 output	1935	% increase over 1934 output	1936	% increase over 1935 output	1937	% increase over 1936 output
Electric power in millions KWH	16,357	21,016	28.4	26,294	25.1	33,000	25.5	36,600	10.9
Coal in thousand tons	76,205	93,940	23.6	108,868	15.9	122,700	12.7	123,000	0.2
Peat in thousand tons	13,845	18,254	31.8	19,900	9.0	14,266	-28.3	13,100	-8.2
Crude oil and gas in thousand tons	22,458	25,612	14.4	26,763	4.5	29,293	9.1	30,700	5.1
Pig iron in thousand tons	7,110	10,428	46.7	12,489	19.8	14,400	15.3	14,550	1.0
Steel in thousand tons	6,889	9,693	41.7	12,588	29.9	16,330	29.7	17,800	9.0
Rolled products in thousand tons	4,882	6,733	37.9	8,995	33.6	12,470	38.6	12,900	3.4
Cement in thousand tons	2,710	3,533	31.3	4,488	27.0	5,849	30.3	5,837	-0.2
Timber in million cubic meters	93	91	-2.0	114.14	25.2	126.3	10.7	93	-26.4
Passenger automobiles, units	10,259	17,110	67.6	18,969	10.9	3,655	-80.7	18,176	397.3
Trucks, units	39,500	55,400	40.3	77,773	40.4	132,917	70.9	181,139	36.3
Cotton cloth in million meters	2,732	2,733	-0.9	2,532	-6.6	3,109	22.8	3,200	2.9
Woolen goods in thousand meters	93,400	82,700	-11.5	91,000	10.0	97,500	7.1	100,300	2.9
Footwear, thousands of pairs	80,200	75,500	-5.9	85,500	13.2	139,940	63.7	183,000	30.8
Canned goods in million cans	800	886.5	10.8	1,155	30.3	1,266	1.4	845	-27.9
Sugar in thousand tons (granulated)	1,345	1,890	40.5	2,750	45.5	1,998	-27.3	2,410	20.6
Average daily carloadings, units	51,200	55,700	8.8	68,100	22.3	86,200	26.6	89,792	4.2

\*Based on figures in Sovier press, and U.S.S.R., Central Direction of National Economic Accounting of the Gosplan of the U.S.S.R., *Sotsialisticheskoe Stroitelstvo SSSR* (Socialist Construction of the U.S.S.R.), Statistical Year Book, Moscow, 1936.

economy which would permit the state to regulate the use of natural resources and means of production, planning both production and distribution over a period of years. The system of planning, which had received preliminary trial in the field of electrification, was finally embodied in the first Five-Year Plan, inaugurated on October 1, 1928.<sup>2</sup>

This plan, first of a series of plans the third of which is now in operation, contained detailed programs for the development of every branch of national economy as well as all fields of social activity, such as housing and education. When the plan was originally introduced, its magnitude was regarded as fantastic not only abroad, but among the more cautious members of the Communist party. Ten years of actual planned economy, however, have demonstrated the practicability of the system, especially as concerns capital investment and certain branches of heavy industry.

The first Five-Year Plan, necessarily experimental in character, was used more as a goal to be exceeded whenever possible than as a norm to regulate national economy. Spurred by the desire to attain socialism in the shortest possible time, the various planning bodies constantly tended to raise production estimates above those set by the government, even when fulfillment of such estimates appeared doubtful in the light of past experience. Political pressure was brought to bear on both planners and individual industries to achieve economically impossible objectives, at a serious cost in terms of wear and tear on men and materials.

As a result of this process the virtues usually ascribed to economic planning—symmetrical coordination of various branches of economy, accurate correlation of production and distribution, elimination of waste—were frequently sacrificed to political and military considerations. Collectivization of agriculture, for instance, was forced to outrun the estimates of the plan for 1928-1930, and neither transportation nor the manufacture of agricultural machinery managed to keep pace with collective farming. Similarly, in 1932-1933 peasant opposition to grain collections caused a decline in agricultural production, and a serious food shortage which reacted unfavorably on industry. Yet application of planned economy has been sufficiently elastic to permit of rapid adjustments to altered political or economic conditions—even if these adjustments have often resulted in sharp zigzags, throwing production temporarily out of gear.

Planned socialized economy was at best incom-

2. Union of Soviet Socialist Republics, *Piatiletii Plan Narodno-Khozyastvennovo Stroitelstva SSSR* (The Five-Year Plan of National Economic Construction of the U.S.S.R.), Moscow, "Planned Economy," 1929, 3 volumes.

plete until the state, through control of the "commanding heights," had integrated the scattered interests of individual producers within the framework of state enterprise. The ground for socialized economy had been broken immediately after the Bolshevik revolution, when the government nationalized land, banks, industry, transportation and raw materials. This process, checked by the New Economic Policy of 1921, was completed in 1933 with the imposition of agrarian collectivization on the peasant masses, which for several years had passively resisted state control of agriculture. Today all means of production have become "socialist property." The state has assumed the functions of employer and landowner. Soviet citizens are either employees of the state or members of cooperatives. Soviet leaders declare that "a new social consciousness is being formed, the survival of capitalist mentality are being outlived, and a new socialist attitude toward work is being developed."<sup>3</sup>

#### THE PLANNING PROCESS

The broad task of drafting the blueprints of Soviet economy was entrusted until 1937 to the Council of Labor and Defense (STO), an organ attached to the Council of People's Commissars. This Council occupied a pivotal position in the Soviet system, and was regarded as the general staff of the economic as well as the armed forces of the Union. Its principal function was to formulate the economic and financial plans of the Union, to alter these plans in accordance with existing economic and political conditions, and to exercise immediate supervision over the performance of economic policies and measures concerning defense.

In November 1937 the functions of the Council of Labor and Defense were entrusted to an Economic Council (*Ecssoviet*), which is to function as a permanent commission of the Council of People's Commissars.<sup>4</sup> This Economic Council is entrusted with the task of verifying quarterly and annual plans, and with general supervision over all economic activities. Its establishment centralizes control of planning more directly than before in the hands of the Soviet cabinet.

The actual task of planning is performed by a special organ, the State Planning Commission (*Gosplan*), which coordinates the plans of the several republics as well as all enterprises and undertakings in the Union, drafts "a common Union

3. V. I. Mezhlauk, "Fulfillment of the Second Five-Year Plan during 1933-35," foreword to State Planning Commission of the U.S.S.R., *The Second Five-Year Plan for the Development of the National Economy of the U.S.S.R. (1933-1937)* (New York, International Publishers, 1937).

4. *Izvestia*, November 24, 1937.

perspective plan" in collaboration with a whole network of regional and local planning bodies, and supervises execution of the plan.<sup>5</sup> The State Planning Commission, like all other institutions in the Soviet Union, was subjected to a searching "wreckers'" purge, which resulted in the removal of ten important executives in August 1937 on the charge they were "enemies of the people." Valery Mezhlauk, former chairman of the Commission, who had had extensive business contacts with the United States, was reappointed to that post in October, but fell into disgrace two months later, when his name was dropped without any explanation from the list of candidates in the December 12 elections. He was not replaced until January 19, 1938—after the third Five-Year Plan was already presumably in operation—when N. A. Voznesenski, a young man employed in a minor capacity in the Commission, was appointed to his post. *Planned Economy*, organ of the Commission, stated that "Trotzky and Bukharin wreckers and spies" had worked their way into the Commission in order to wreck planning at its source. It charged them with "delaying in every possible way the drafting of annual and quarterly national economic plans; of confusing the accounting system; of designing construction of immense industrial enterprises at places far from raw materials, electric power and water resources; and of retarding the construction of important military enterprises."<sup>6</sup>

Reports of "malicious" and "base" sabotage in the State Planning Commission may be traced to a fundamental division of opinion between Stalin, who had urged acceleration of industrial production, regardless of cost, and more conservative Soviet leaders, who had advocated slower development of the country's resources. In 1928-1929 the Right Opposition, led by Rykov, Bukharin and Tomsky, had severely criticized Stalin's efforts to force the industrial pace. Their resistance at that time doubtless affected the government's decision in 1938 to "purge" members of this group on charges of willful mismanagement and sabotage of industry.

Now that Stalin and his advisers believe they have laid the technical basis for further industrial development, they have themselves taken the lead in urging what may be described as "the newest New Economic Policy"<sup>7</sup> of "decelerating" Soviet

5. The organization and functions of the State Planning Commission are defined in a decree of August 21, 1923. *Sbornik Postanovlenii i Rasporiuzhenii Raboche-Krestianskovo Pravitelstva SSSR* (Collection of Decrees and Regulations of the Workers' and Peasants' Government of the U.S.S.R.), Moscow, 1923, No. 13, p. 216.

6. *Planovoye Khozyastvo* (Planned Economy), 1937, No. 11-12.

7. *The Economist* (London), April 23, 1938, p. 186.

industry. This policy had been adumbrated by Kaganovich, Commissar of Heavy Industry, at a conference of coal and metallurgical workers on October 26-29, 1937, when he had said that Soviet industry was suffering from growing pains.<sup>8</sup> Kaganovich developed his views further in an order of January 21, 1938 on execution of his commissariat's 1938 production plan.<sup>9</sup> His order indicated the Soviet authorities had realized that operation of large-scale and up-to-date equipment demands a high degree of skill which cannot be acquired overnight by untrained peasants; that Stakhanov methods of "shock" production frequently result in costly breakdowns, maladjustments, and a high percentage of defective goods; that forced production hinders repairs, with resulting rapid deterioration of equipment; and that economic plans must conform more closely than in the past to the normal capacity of industry. Kaganovich stated that the industrial difficulties experienced in 1937 had been due not so much to "wrecking" as to incompetence, disorganization, waste of raw materials and fuel, an inordinate amount of scrap, and "overexpenditures from wage funds, regardless of non-productive utilization of working time,<sup>10</sup> all of which created financial difficulties."

The effects of the policy of deceleration are already visible in discussions of the third Five-Year Plan which, owing largely to disorganization in the State Planning Commission, has not yet been outlined for the entire five-year period, and for 1938 is available only in skeleton form.<sup>11</sup> The 1938 plan provides for total industrial production valued at 84 billion rubles, as compared with 78 billion planned (and 73 billion actually produced) in 1937—an increase of 15.3 per cent, representing the lowest annual increase anticipated in several years. The value of the actual output of all branches of industry during 1937 had already shown a decline in the rate of increase, being 12.5 per cent greater than the actual output for 1936, but 6.9 per cent behind the 1937 plan. Due to the expansion of Soviet industry since 1928, this relatively smaller gain has actually greater significance than the higher percentages of previous years—especially when it is noted that advanced industrial countries seldom

8. *Industriya* (Industry), organ of the People's Commissariat of Heavy Industry, November 1, 1937.

9. *Ibid.*, January 29, 1938.

10. This apparently refers to payment of bonuses to Stakhanov workers for individual production records, at a time when the work of the plant as a whole may have failed to increase, or even declined. For further discussion of this problem, cf. Vera M. Dean, "Problems of Labor and Management in the U.S.S.R.," *Foreign Policy Reports*, June 15, 1938.

11. Decree of the Council of People's Commissars regarding the program of industrial production and the work of the railroads for 1938. *Izvestia*, December 1, 1937.

achieve a gain of as much as 10 per cent annually over a period of years.

The 1938 plan contemplates absolute growth in Soviet industrial development, but a decline in the rate of growth. This slowing down is due, in part, to the effects of the "wreckers'" purge which, during the past two years, swept out thousands of experienced managers and engineers, replacing them with zealous but inexperienced young men; and paralyzed the initiative of surviving veterans who, fearing their technical mistakes might be regarded as treason, preferred to take refuge in inaction. The Soviet authorities also contend that the stage of feverish construction which marked the first two Five-Year Plans must now be followed by a period of industrial reorganization and "cultured production." Directors of industrial enterprises are urged not to raise production schedules above those outlined by the plan; reduce administrative paperwork, which has been one of the worst evils of the Soviet industrial system; economize on fuel and raw materials; conserve resources of men and machinery; and avoid the abrupt ups and downs of Stakhanov shock-brigade methods.<sup>12</sup> The third Five-Year Plan is expected to emphasize not quantity and speed, but quality, reduction of industrial costs and increase of labor productivity, which remains the Achilles' heel of Soviet economy.

#### THE DEVELOPMENT OF INDUSTRY

Government reconstruction of Russia's economic system along socialist lines has nowhere been so thoroughgoing as in industry. Except for some handicrafts, which are fast dwindling in significance, private industry no longer exists in the Soviet Union. Soviet industries are operated under the direction of five principal government departments—the Commissariats of Heavy, Light, Food, Defense and Timber Industries—directly responsible to the newly formed Economic Soviet. Following the far-reaching purge of "deviationist wreckers" during 1936-1938, control of industry was gradually centralized in the hands of Stalin's inner council of trusted advisers. Nikolai Yezhov, often regarded as Stalin's right-hand man, heads the Commissariat of Internal Affairs (NKVD), successor of the GPU, which directs the construction of the country's principal public works, built in large part by prison labor. In April 1938 Yezhov was appointed Commissar of Water Transportation—a department whose administration had been under fire during the January 1938 Congress of Soviets. Yezhov's former Assistant Commissar,

12. *Ibid.*; Joseph Barnes, *New York Herald Tribune*, March 20, 1938.

Ryzhov, who had supervised penal labor in timber camps, was named Commissar for the Timber Industry in December 1937. Lazar Kaganovich, chief Soviet "trouble-shooter," remains at the helm in the Commissariat of Heavy Industry, and in April 1938 took over the much-criticized Commissariat of Railways; while his brother, Mikhail, is in charge of the Commissariat of Defense Industry, established in December 1936.

The industrial reorganization begun in the fall of 1937 had as one of its aims transformation of the commissariats in control of industry from mere administrative departments into actual "operative centers of national economy."<sup>13</sup> At the present time individual industrial plants and undertakings controlled by these commissariats are grouped into trusts which, in turn, are organized into over thirty so-called combines, such as coal, oil, rubber, agricultural machinery, industrial machinery, and others. The combines appoint the directors of the trusts, control the supply of raw materials assigned to these trusts, regulate the distribution of government credits among them, and assist the State Planning Commission in the preparation of annual plans for their respective industries.

Under the first and second Five-Year Plans the efforts and resources of the Soviet state were concentrated on the development of heavy and defense industries. Soviet leaders declared that, once the country was equipped with adequate facilities for the manufacture of means of production, it would become independent of capitalist states, and could then turn its attention to light industry—the production of consumers' goods. Heavy industry consequently made the greatest relative gains during the period 1928-1937, while light industry lagged behind.<sup>14</sup>

This disparity between heavy and light industry explains the apparent paradox that, while the Soviet Union reports constant industrial progress, the population continues to experience a shortage of such necessities as shoes, clothing, furniture, and manufactured goods. Pressed for time in its race to attain and, if possible, surpass the technical level of capitalist states, the Soviet government purposely postponed fulfillment of the Russians' rapidly increasing desire for a higher standard of living, reflected in growing demand for consumers' goods.

During the period 1928-1937, for which official figures are available, total industrial production in-

13. *Planovoye Khozyastvo* (Planned Economy), 1937, No. 11-12.

14. It has been estimated that the output of heavy industry has been 50 per cent higher than that of light industry. Walter Duranty, *New York Times*, October 20, 1937.

creased from 9 billion rubles in 1928 to 73 billion in 1937. Detailed figures of production in the principal branches of Soviet industry for 1933-1937 are given in the accompanying table. Starting practically from scratch, Soviet production of locomotives, trucks and freight cars increased three or four times in the past ten years. Output of tractors, two-thirds of which were imported from abroad in 1928, rose from 1,272 units in 1928 to 111,900 in 1936, none having been imported since 1931. No official figures are available regarding production of airplanes, but the success of the Soviet government in developing this industry may be measured to some extent by the performance of Soviet airplanes furnished to the Spanish Loyalists. It has also been reported that the Soviet government is planning to build submarines and warships on the Baltic and the Black Sea.<sup>15</sup> New industries have been established for the manufacture of products previously imported from abroad—notably chemicals, some metals, and various types of machinery.

This steady progress in the development of heavy and defense industries took place during a period of world depression, when the prices of Soviet exports, consisting chiefly of raw materials, experienced a drastic decline on world markets. The Soviet Union is gradually emerging from industrial dependence on foreign states, and may eventually be in a position to supply its own industrial and military needs without resort to imports.<sup>16</sup> While its output of coal, pig iron and electric power is only approaching the levels attained by the United States at the end of the nineteenth century, its production of pig iron and steel already compares favorably with that of present-day Germany.<sup>17</sup> At the same time it should be pointed out—and this consideration is important in estimating Soviet industrial production in time of war—that Soviet industry, unlike that of the United States (but probably like that of Germany), is at present operating at maximum capacity, and would be severely strained by war emergencies.

These quantitative results have been achieved at a sacrifice both in quality of goods and insufficiently decreased cost of production. The rise in value of heavy industry output has been accompanied by increase in scrap and deterioration of machinery because of shock-brigade methods and

15. Harold Denny, *New York Times*, January 6, 1938; Hanson Baldwin, *ibid.*, January 9, 1938.

16. Walter Duranty, *New York Times*, October 20, 1937.

17. PIG IRON STEEL  
(in 1,000 metric tons)

	U.S.S.R.	Germany	U.S.S.R.	Germany
1933	7,110	5,247	6,842	7,453
1937	14,550	15,062	17,800	18,856

lack of timely repairs. This has been particularly true of the steel, coal, crude oil, copper and chemical industries.<sup>18</sup>

Moreover, while the production of industrial raw materials has increased three or four times since 1928, it has frequently failed to keep pace with industrial expansion. Particular difficulties have been experienced with coal production. In April 1937, after repeated efforts to reorganize the coal industry, the government decreed immediate improvement of wage, cultural and living conditions of miners in the Don Basin, which had experienced a heavy labor turnover.<sup>19</sup> Owing to labor difficulties these mines, which supply 65 per cent of the coal used by Soviet industry, had been 15 to 20 per cent below their production schedule. Shortage of coal had caused the government to order the electric power industry—accused of wasting fuel—to reduce its consumption. The 1938 plan envisaged a smaller output of electric power than that actually produced in 1937. On January 15, 1938 the Economic Soviet ordered reduction in the expenditure of electric power by cutting down on street lighting in Moscow and Leningrad.<sup>20</sup> Measures have also been taken to speed up the copper industry, regarded as the most backward in the country,<sup>21</sup> and the timber industry, whose condition was denounced by the newly appointed Commissar, Ryzhov, as "shameful."<sup>22</sup>

By contrast, spectacular gains have been made in Soviet gold production, which increased 577 per cent between 1929 and 1936. No official figures are released on output of gold, which is guarded as a secret in the Soviet Union. Well-informed observers believe that gold production in 1937 totaled 5,000,000 fine ounces, or about one-sixth of the world output.<sup>23</sup> Transportation facilities for the gold industry have been improved by the construction of roads and railways, and the installation of a fleet of boats on the River Lena. Exports of gold were resumed in March 1937.

Light industry has slowly increased production during the past ten years, but prices of consumers' goods—although somewhat reduced—remain in-

18. *Industriya*, January 6 and 29, 1938.

19. There has always been a considerable labor turnover in the Don Basin, which has recruited seasonal workers from neighboring agricultural regions. During 1937, 290,000 workers were brought into the coal mines to replace 291,000 who had abandoned their jobs for one reason or another. *Ibid.*, February 15, 1938.

20. *Pravda*, February 9, 1938; "Berech Electro-energiul!" (Conserve Electric Energy!), *Izvestia*, February 2, 1938.

21. *Industriya*, November 23, 1937.

22. *Pravda*, February 12, 1938.

23. Bank for International Settlements, *Eighth Annual Report, 1st April, 1937-31st March, 1938* (Basle, May 9, 1938); p. 37.

ordinately high, and their quality is for the most part unsatisfactory. The 1937 plan for light industry had called for an increase of 20.7 per cent of the gross output over 1936, but the actual increase achieved was only 11.7.

Owing to the relatively slow rate of development of light industry, the Soviet Union continues to suffer from under-production of consumers' goods. Light industry enterprises are in the happy position that anything they produce will be snapped up by eager customers. They consequently pay little attention to quality of the product or accurate adjustment of supply to the needs of the population. Stakhanov workers who receive special bonuses have often been at a loss to spend their earnings because of shortage of goods, while workers in lower-paid categories have found the prices of many manufactured goods prohibitive.<sup>24</sup>

#### GIANT INDUSTRIAL UNDERTAKINGS

A number of so-called "giant" undertakings, intended to emulate American large-scale construction, were completed under the first two Five-Year Plans. Among the most notable were the Turkistan-Siberian Railway, which taps an important cotton-growing region; the Stalingrad, Kharkov and Cheliabinsk tractor factories; the Rostov agricultural machinery plant; the automobile plant at Nizhni-Novgorod; the Baku-Batum pipe-line; the Dnieprostroi hydroelectric plant in the Ukraine, which will serve a network of industries, some of which remain to be constructed; the Magnitogorsk steel plant in the Urals, which will furnish the Soviet Union with an important base both for industrial production and for defense against attack in the Far East; the Baltic-White Sea canal, which will permit warships to pass in a few days from the Baltic to the White Sea; and a canal linking the Volga to Moscow, which has become an important river port.

At the end of the second Five-Year Plan, on December 19, 1937, the government announced completion of the double-tracking of the Karymskaya-Khabarovsk section of the Trans-Siberian Railway,<sup>25</sup> which will strengthen Soviet defenses in the Far East. Another strategic 150-mile line is being built which will connect Ulan Ude, capital of Buryat Mongolia in Siberia, with Kiakhta, on the border of Outer Mongolia, already linked by a motor highway and an airline with Ulan Bator, capital of Outer Mongolia.<sup>26</sup>

24. No official price indices have been published since 1932. Joseph Barnes, *New York Herald Tribune*, April 30, 1937.

25. *Izvestia*, December 20, 1937.

26. *New York Herald Tribune*, February 3, and April 20, 1938.

In harmony with the recent tendency to decelerate industrial construction, the Soviet authorities have begun to denounce "giantomania," regarded as "one of the greatest defects in planning."<sup>27</sup> The 1938 plan provides for construction of only one large-scale project—a power plant described as "the biggest in the world," to be built near Kuibishev, formerly Samara, on the Volga. This plant is to have an annual production capacity of 14 billion kilowatt-hours.<sup>28</sup>

Like the double-track of the Siberian railway and the Baltic-White Sea canal, the Kuibishev plant is to be built partly by prison labor, directed by the Commissariat of Internal Affairs, which under Yezhov's leadership has become the principal builder of public works in the Soviet Union.<sup>29</sup> When announcing completion of the Karymskaya section on December 19, 1937, the government congratulated the NKVD on its "success in uprooting the enemies of the people"; and the Soviet press has praised the secret police as "excellent managers and brilliant organizers of socialist industry," who have recruited "permanent cadres" for construction jobs.<sup>30</sup>

Whenever possible, factories and extractive industries have been grouped by geographic regions into powerful industrial combines—for example the Ural-Kuznetsk combine and the network of industries centering around the Dnieprostroi. Foreign experts have criticized the tendency of the Soviet government to scatter its resources of labor and raw materials by simultaneously starting work on plants in several regions instead of concentrating on the completion and efficient operation of a few key undertakings. Soviet leaders, however, believe that the country's industrial backwardness and the vastness of its territory make it imperative to decentralize industry, and develop various regions differing in climate and natural resources. They hope eventually to create all over the Soviet Union well-knit and self-sufficient industrial units, linked with neighboring agricultural organizations into communities in which workers and peasants will labor side by side for the welfare of society as a whole. Most important of all, it is thought that decentralization of industry and creation of self-sufficient agro-industrial units will prove strategically valuable in case of war. Even if one region of the Soviet Union—east or west—were in-

27. *Finansovaya Gazetta* (Financial Gazette), December 22, 1937.

28. *New York Herald Tribune*, January 4, 1938.

29. Demaree Bess, "How Russia Polices Big Industry," *Christian Science Monitor*, April 26, 1938.

30. *Christian Science Monitor*, March 15, 1938, quoting *Rabochaya Moskva* (Working Moscow).

vaded by an enemy, the country's powers of defense would be only partly impaired, as other regions would remain intact and ready to furnish the army with foodstuffs and munitions.<sup>30a</sup>

#### FINANCING OF NATIONAL ECONOMY

The early days of Soviet rule were dominated by the impression that in a socialist economy, where the state controls all means of production and fixes both wages and prices, money had become obsolete; "economy" in construction was unnecessary because unlimited funds were available; and no accounting had to be rendered by state enterprises.<sup>31</sup> The resulting waste of labor and material dispelled this impression. It was soon realized that even a socialist state must achieve tangible results in terms of quality and quantity of finished products, and declining cost of production.

Financing of Soviet industry has demonstrated the capacity of a socialist state to accumulate resources for capital investment. The government controls all sources of capital, both social and private. The greater part of the national income—over 95 per cent in 1937 as compared with 26.7 per cent in 1928-1929—passes directly through the unified state budget, which includes all union, republican and local budgets.<sup>32</sup> The budget, as shown in the accompanying table, provides not only for ordinary administrative expenditures, but for the financing of national economy, as well as of social and cultural activities. The funds made available in the budget are administered by the State Bank and several special long-term banks, whose principal function is to redistribute capital among all branches of socialist economy in accordance with the provisions of the annual plan.<sup>33</sup> The transactions of Soviet banks are more in the nature of investment of capital by a large concern in the development of one of its branches than in the nature of bank loans to industry.<sup>34</sup>

30a. U.S.S.R., State Planning Commission, *Narodno-Khozyastvennyi Plan na 1936 God: Plan Razvitiya Raionov* (National Economic Plan for 1936: Plan of Regional Development), Moscow, 1936.

31. For a detailed account of this period, cf. A. Z. Arnold, *Banks, Credit, and Money in Soviet Russia* (New York, Columbia University Press, 1937).

32. L. E. Hubbard, *Soviet Money and Finance* (London, Macmillan & Co., Ltd., 1936), p. 108.

33. *Ibid.*, p. 108; W. B. Reddaway, *The Russian Financial System* (London, Macmillan & Co., Ltd., 1936), pp. 39-40.

34. Long-term credits are granted to industry by the Long-Term Credit Bank for Industry and Electrification (*Prombank*), organized in 1928; to socialized agriculture by the *Selskhozbank* (Agricultural Bank); to cooperative organizations by the *Vseko-bank* (All-Union Cooperative Bank); to municipal public utilities and housing enterprises by the *Tsekombank* (Central Bank for Public Utilities). While the State Bank finances the bulk of foreign trade operations, the export of such raw ma-

The principal channels of social accumulation are the turnover tax, and the profit tax levied on the socialist sector of national economy—industries and state farms. The proportion of resources derived directly from socialist economy increased from 80.3 per cent in 1932 to 83.8 per cent in 1937, while that obtained from the population in the form of state loans and taxes on individuals decreased from 16.8 to 9.3 per cent.<sup>35</sup> Internal borrowing in 1936 totaled 14.7 billion rubles in outstanding state loans,<sup>36</sup> annual service on which was estimated at 2½ billion rubles. This represents only a small proportion of total capital investment, which during the second Five-Year Plan period was estimated at nearly 114 billion rubles.<sup>37</sup> The vast industrial development achieved since 1928 has thus been largely paid for not by internal borrowing or foreign loans, but by compulsory saving on the part of the entire population, accomplished at the expense of consumption.<sup>38</sup>

The "mobilized resources" of the population, as distinguished from resources accumulated by socialized economy, include both voluntary and compulsory contributions—taxes, state loans, deposits in savings banks, etc. Of the total "mobilized resources" in 1937, estimated at 12.7 billion rubles, 8.5 billion passed directly through the state budget—5.9 billion representing loan subscriptions and savings, and 2.6 billion representing taxes paid by individuals.<sup>39</sup> In practice private saving is not easily distinguishable from social accumulation. It is effected primarily through periodic state loans, purchased for the most part by workers, usually in the form of a "voluntary" deduction of wages; purchase of shares in cooperative organizations, which is practically obligatory; and deposits in savings banks, all of which are controlled by the state.<sup>40</sup> The incentive to save for personal purposes is very weak, since the individual receives from the government various forms of insurance to which, under

terials as timber, oil, grain and dairy products, as well as industrial products, is financed in part by the *Vneshtorgbank* (Bank for Foreign Trade).

35. State Planning Commission of the U.S.S.R., *The Second Five-Year Plan for the Development of the National Economy of the U.S.S.R. (1933-1937)* (New York, International Publishers, 1937), p. 540; M. Bogolepov, "Finansy SSSR nakanune Tretei Piatiletki" (Finances of the U.S.S.R. on the eve of the Third Five-Year Plan), *Planovoye Khozyastvo* (Planned Economy), 1937, No. 3, p. 104.

36. *Izvestia*, June 29, 1936. (Latest available figure.)

37. *The Second Five-Year Plan for the Development of the National Economy of the U.S.S.R.*, cited, p. 657.

38. Hubbard, *Soviet Money and Finance*, cited, p. 109.

39. Bogolepov, "Finansy SSSR nakanune Tretei Piatiletki" (Finances of the U.S.S.R. on the eve of the Third Five-Year Plan), cited.

40. It is estimated that by January 1, 1937, 14 million persons had savings bank deposits averaging 252 rubles. *Ibid.*

capitalism, the worker must contribute in one way or another. In a broad sense, the Soviet state pays wages and salaries out of resources accumulated by society, and receives them back in the form of subscriptions to state loans and payment for goods produced by state industries, whose prices are in turn fixed by the state.

The principal items for which funds are allocated from the state budget are the financing of national economy, which in 1937 was to absorb 40 per cent of total expenditures; cultural and social welfare activities, for which 25 per cent of the budget was allotted in 1937; and expenditures for direct military purposes, estimated at about 25-26 per cent of total expenditures for 1937. Direct military expenditures embrace those planned for industries under the Commissariat for Defense Industry; the Commissariat of Defense; and the Commissariat of Internal Affairs (former GPU), including expenditures for border guards. In addition it is believed that considerable expenditures listed under the budgets for the Commissariats for Heavy Industry, Railways, Water Transportation, etc., are also used for direct or indirect military purposes, which might bring up military expenditures to 40 or 50 per cent of the budget.

Each industrial trust financed through the state budget retains a portion of its profits—fixed by the government—for capital expansion, improvement of the workers' living conditions and other purposes, the balance going into the state treasury. The state then uses these funds for the extension of credits to various undertakings, and is able to shift capital from one trust to another, supporting a less profitable but politically or socially more important enterprise on the profits of a more successful one. Thus the large proportion of funds allotted by the state to heavy industry—regarded as the most important branch of industrial production—has so far greatly exceeded the revenue derived from that source.<sup>41</sup> This possibility of shifting capital from one enterprise or branch of economy to another has not eliminated the desire to make profits, which has been translated from the plane of individual to that of state capitalism. Managers of Soviet industries have vied with each other to increase profits, often at the expense of the quality of their products.<sup>42</sup> Eventually the government hopes to make all state enterprises as self-supporting as possible, through in-

41. In 1937 profits from heavy industry totaled 4.2 billion rubles (as compared with over one billion in 1933), while budget allotments for heavy industry totaled 7.5 billion (as compared with 11 billion in 1933). Bogolepov, "Finansy SSSR nakanune Tretei Piatiletki" (Finances of the U.S.S.R. on the eve of the Third Five-Year Plan).

42. Harold Denny, *New York Times*, April 16, 1938.

crease in labor productivity, decrease in production costs, and improved accounting.

Realization that even in a socialist state money cannot be spent like water has brought a new emphasis on cost accounting. At first the State Bank, chief distributor of credits to industry, extended credits on request, without inquiring too closely into the purposes for which the money was to be used. In 1931 the system of accounting (*khozraschet*) was strengthened, and the government has attempted to enforce it in all state institutions. Credits are now extended for specific purposes, and money is paid only on actual fulfillment of contracts. Each undertaking must report performance of the task for which the money was allotted, and must publish balance sheets showing its activities. Under the second Five-Year Plan the government stressed the necessity of strengthening "control by the ruble" by perfecting the system of settling accounts between various economic units, as well as between these units and credit institutions.

The purchasing power of the Soviet ruble which, contrary to official assertions had gone through a period of serious depreciation, has remained stable since 1935, due to the increased supply of food-stuffs and consumers' goods. On January 1, 1936 the government fixed a new exchange rate of the ruble—which is not yet quoted on foreign exchanges—at five rubles to the dollar.

#### THE AGRARIAN REVOLUTION

Important as has been the development of industry under the first two Five-Year Plans, Soviet leaders have long recognized that the ultimate success of socialism is contingent on socialization of agriculture. It was not until 1930 that the Soviet government attempted to solve the paradox of individual agriculture in a socialized economy. A decree of November 7, 1917 had abolished private ownership of land, which was henceforth to be regarded as state property.<sup>43</sup> Individuals were granted only the use of land, which they could cultivate with their own labor or that of their families; hiring of labor was prohibited. But nationalization of land remained largely a paper measure. The government did not obtain direct control of land, except for some tracts on which it established state farms. In practice the peasants, most of whom had suffered from land-hunger since their emancipation in 1861, proceeded to parcel among them-

43. *Sobranye Uzakonenii i Rasporiazhenii Rabochavo i Krestianskovo Pravitelstva* (Collection of Laws and Regulations of the Workers' and Peasants' Government), Moscow, 1917-1918, Vol. I, pp. 3-5.

selves the land they had wrested from the landlords. As a result, land was transferred not to the state but to 25 million peasant households which regarded it as their private property.<sup>44</sup>

This fractioning of land alarmed the Soviet government.<sup>45</sup> It feared that small-scale farms, left in the hands of ignorant and impoverished peasants, would fail to produce grain and raw materials in quantities sufficient to sustain a growing population and expanding industry. The small-scale farmer, moreover, was regarded as a political menace.<sup>46</sup> Lenin was convinced that only collective cultivation of land on a large scale would enable Russia to proceed unhampered with its industrial development and achieve independence from foreign capitalism. He also hoped that the industrialization of agriculture would create an identity of interests between peasants and factory workers—would forge a “link” between them—and convert the peasants from capitalists in embryo into willing participants in the task of socialization.<sup>47</sup>

The events of 1918-1920 prevented the realization of Lenin's original agrarian program. The Soviet government, engaged in combating intervention and counter-revolution on several fronts, resorted to measures of “war communism” to avert a threatened famine. Grain and other foodstuffs were requisitioned from the peasants at prices far below those prevailing in the open market, and drastic restrictions were imposed on private trade. The peasants retaliated by curtailing the sown area and finally, here and there, resorted to open rebellion.<sup>48</sup> Confronted by an acute agrarian crisis, Lenin in 1921 introduced the New Economic Policy (NEP). This policy represented a temporary concession to the “petty bourgeois” and “petty capitalist” instincts of peasants and private traders. Nationalization of land remained in force. The peasants, however, were permitted to rent land, hire labor and sell their grain to private traders, whose position was also ameliorated.

The NEP injected new life into the *kulaks*. This term, which may be translated as “big fist,” had been applied before the revolution to prosperous as distinguished from poor and “middle” peasants, and was used to describe their grasping character.

44. On the agrarian revolution of 1917-1918, cf. Communist Academy, *Agrarnaya Revoltsia* (The Agrarian Revolution), Moscow, 1928, 4 vols., Vol. II, *Peasant Movement in 1917*.

45. Mikhail Kalinin, President of the U.S.S.R., Report at Fifth All-Union Congress of Soviets, *Izvestia*, June 1, 1929.

46. V. I. Lenin, *Sobranye Sochinenii* (Collected Works), Moscow, State Publishing Board, 1926-1930, Vol. XIV, Part I, p. 169.

47. *Ibid.*, Vol. XVI, p. 375.

48. For discussion of the period of “war communism,” cf. Maurice Dobb, *Russian Economic Development Since the Revolution* (New York, Dutton, 1928), Chapter IV.

Following the introduction of NEP, the *kulaks*, who had been losing ground since 1918,<sup>49</sup> began to rent land from the poor peasants, whom they often hired as farm hands, and to whom they sold their grain surplus. As a group the *kulaks* formed little more than 3 per cent of the population, and could be considered prosperous only by the low standards of Soviet agriculture. But they occupied a controlling position in agricultural production, furnishing, together with some of the more prosperous “middle” peasants, 30 per cent of the total grain produced and 40 per cent of the total marketed grain.<sup>50</sup>

The rise of the *kulaks*, who dominated the “private sector” of agriculture, offered a striking contrast to the slow progress made by the “socialized sector” after 1921. The socialized sector consisted of state farms,<sup>51</sup> established by the government on land seized from the landowners in 1917, and collective farms<sup>52</sup> of various types, which by 1927 embraced only 1,100,000 peasants. The state and collective farms constituted as yet mere islands in the sea of individual peasant farms, and together supplied only 1.5 per cent of the total marketed grain.<sup>53</sup> Perpetuation of the private sector, according to Soviet leaders, would have left the government at the mercy of the *kulaks*, who were hostile to socialism and might have deprived the industrial centers of foodstuffs and raw materials.

#### THE DRIVE FOR COLLECTIVIZATION

The Communist party was divided regarding the policy best calculated to solve the agrarian problem. Trotzky favored intensive collectivization and a concerted drive of poor and “middle” peasants against the *kulaks*.<sup>54</sup> Stalin, in reply, con-

49. For an analysis of the economic readjustment in the villages following the 1917 revolution, cf. Union of Soviet Socialist Republics, *K Voprossu o Sozialisticheskem Pereustroistvye Selskovo Khozyastva* (Regarding the Question of the Reorganization of Agriculture), Materials prepared by the People's Commissariat for Workers' and Peasants' Inspection of the U.S.S.R. Moscow, State Publishing Board, 1928, p. 7.

50. *Piatiletii Plan*, cited, Vol. II, Part I, p. 271.

51. Union of Soviet Socialist Republics, People's Commissariat for Agriculture, *Sovetskie Khozyastva* (State Farms), Collection of decrees and regulations regarding the organization and activities of State Farms, February 14, 1919-November 7, 1920. Moscow, State Publishing Board, 1924.

52. Union of Soviet Socialist Republics, People's Commissariat for Agriculture, *Selsko-Khozyastvennaya Kooperazia* (Agricultural Cooperation), Collection of decrees, regulations, circulars, etc. regarding questions of agricultural cooperation. Moscow, “The New Village,” 1924.

53. State Planning Commission of the U.S.S.R., *Kontrolnye Zifry Khozyastva SSSR na 1929-1930 God* (Control Figures of the National Economy of the U.S.S.R. for 1929-1930), Moscow, “Planned Economy,” 1930, table 66, p. 554.

54. For a statement of Trotzky's agrarian program at that time, cf. Leon Trotzky, *The Real Situation in Russia* (New York, Harcourt Brace, 1928), p. 60 *et seq.*

tended that the state was not yet financially and industrially equipped to supplant *kulak* production with that of state and collective farms. He proposed merely to restrict *kulak* activities by means of taxation and other administrative measures, while encouraging all forms of agrarian cooperation.<sup>55</sup> At its Fifteenth Congress in December 1927 the Communist party condemned the proposals of Trotzky, who had already been expelled from party ranks, and approved Stalin's program.<sup>56</sup> This program was further elaborated in the first Five-Year Plan, which provided for expansion of state and collective farms.<sup>57</sup>

The measures adopted by the government to restrict *kulak* activities aroused criticism on the part of the more moderate elements of the Communist party, known as the "Right" Opposition. This group, headed by Rykov, Bukharin and Tomsky, described the treatment of *kulaks* as "military-feudal oppression," and warned the government that its agrarian policy would alienate the peasants and produce a grain crisis. The 1929 harvest, however, revealed marked expansion of collective farming and improvement in agricultural production.<sup>58</sup> The Right Opposition publicly recanted its "heresy" in November 1929,<sup>59</sup> and on January 6, 1930 the government issued a decree launching the drive for complete collectivization.<sup>60</sup>

The local authorities, with the aid of shock-brigades of workers recruited from urban centers, zealously proceeded to apply this program. Collectivization was accompanied by intensification of class war in the villages. The land and means of production of the *kulaks* were confiscated; the *kulaks* were deprived of the right to rent land; they were barred from entering the new collective farms into which their property had been absorbed, and were literally outlawed. Enraged by these measures, the *kulaks* slaughtered their livestock to prevent it from falling into the hands of the authorities, murdered Soviet officials, and set fire to

55. I. V. Stalin, *Ob Oppozitsii* (Regarding the Opposition), Moscow, State Publishing Board, 1928.

56. Russian Communist Party, *XV Syezd Vsesoyuznoi Komunisticheskoi Partii* (Fifteenth Congress of the All-Union Communist Party). Stenographic Report, Moscow, State Publishing Board, 1928, p. 1279.

57. *Piatiletii Plan*, cited, pp. 270 *et seq.*

58. *Control Figures*, cited, pp. 528 *et seq.* At pre-war prices, agricultural production in 1928-1929 showed an increase of 12.7 per cent over 1913, although the production of grain showed a decrease of 4.8 per cent as compared with pre-war averages for the five years 1909-1913. Boris E. Skvirsky, "A Survey of Soviet Russia's Accomplishments," *Current History*, July 1930, p. 649. It should be noted that, as a result of unfavorable weather conditions, both 1927 and 1928 had been years of bad harvests.

59. *Izvestia*, November 26, 1929.

60. *Ibid.*, January 7, 1930.

state granaries. Thousands of them were exiled to North Russia and Siberia.<sup>61</sup>

As a result of this drive, it was estimated on March 1, 1930 that 55 per cent of all peasant farms had been collectivized.<sup>62</sup> It soon became apparent, however, that the zeal of local organizers had frequently defeated the government's ends. In many regions collectivization had taken place on paper only, without prior consultation of any but the poor peasants, who possessed few assets and could establish collectives only with the aid of their more prosperous neighbors. On many occasions, especially in the more backward districts, economic and even military pressure had been applied to peasants reluctant to join the collectives. These measures antagonized the "middle" peasants, whose cooperation was essential to the success of collectivization. The abrupt shift from individualist to collective farming—frequently accompanied by socialization of homes and personal effects—also created bitterness among the older peasants, dismayed by the sudden breaking-up of their traditional way of life. Their hostility was all the more dangerous because the village youth, which had enthusiastically welcomed the new era in agriculture, tended to be absorbed into industry, leaving the farms in the hands of the older generation.

Stalin, aware that peasant antagonism might wreck collectivization, took drastic steps to avert this disaster. In an article of March 2, 1930<sup>63</sup> he warned his followers against "dizziness from success." He decried the formation of paper collectives in regions unprepared for collectivization, especially when accompanied by threats of military force or economic boycott. He declared that the task of the party was to consolidate existing collectives and win the voluntary cooperation of the peasants. He reassured the peasants by stating that the only practicable form of collective organization at that stage of socialism was not the commune, in which all possessions were socialized, but the *artel*, a charter for which had been drawn up by the government.<sup>64</sup>

61. For comments on this phase of collectivization, cf. address made by Yakovlev, People's Commissar for Agriculture, to Moscow workers departing for work on collective farms, *Izvestia*, January 24, 1930; and address made by Kalinin, President of the Union of Soviet Socialist Republics, *ibid.*, March 3, 1930. For a history of this period, cf. W. Ladejinsky, "Agriculture in the Soviet Union," *Political Science Quarterly*, Vol. 49 (1934), pp. 1, 207.

62. *Izvestia*, March 14, 1930.

63. "Golovokruzhenie ot Uspehov" (Dizziness from Success), *Izvestia*, March 2, 1930.

64. For text of charter, which was revised in 1935, cf. *Izvestia*, March 2, 1930. The English text was published in the *Economic Review of the Soviet Union* (no longer published), April 1, 1930, p. 124.

The *artel*, which remains the accepted type of collective organization, is formed when a number of peasants decide to pool their land holdings, labor and means of production and establish a large-scale collective farm. Land, agricultural machinery, all draft-animals, seed reserves and farm buildings are socialized. Homes, however, remain the property of their individual owners. Sheep, swine, cows, fowls, small implements used in orchards and gardens may also be retained by members for individual use. Any person who has reached the age of sixteen is eligible for membership in the *artel*. On entering each member must pay a fee in cash—from 2 to 10 per cent of the value of his property, both socialized and unsocialized. This fee may be recovered when he leaves the *artel*; his land, however, remains the property of the collective. The affairs of the *artel* are administered by general meetings of the members, and by an executive board elected for one year. This board apportions work among the members, regulates the distribution of wages, and supervises the use of various common funds, such as that for the support of old and invalid members of the *artel*. The collective farms pay no rent for the land, which remains the property of the state. The government extends credits to the collectives, rents to them tractors and agricultural machinery through a network of machine and tractor stations (MTS), and furnishes them with expert agronomic assistance.

In return for this assistance, each collective farm was required in 1930 to conclude a "contract" with the government, by which it agreed to deliver to the state all produce over and above the needs of its members and livestock. The system of "contractation" made it possible for the government to count on a stipulated quantity of grain and raw materials at the end of the harvest. This not only facilitated the application of planning to agriculture, but freed the state from its former dependence on *kulak* production.

#### PASSIVE RESISTANCE OF THE PEASANTS

The peasants, however, found the system unsatisfactory. The price paid by the state for grain and other produce was not only much lower than that which they might have obtained in the open market, but was often insufficient to buy the scanty supply of manufactured goods which the government could place at their disposal. The peasants, moreover, had little incentive to increase their output, since a rich harvest meant, not an additional supply of food for the collective farm, but larger grain deliveries to the state.

The relatively poor harvest of 1931 aggravated peasant discontent. The government, determined to carry out its agrarian program regardless of the decline in grain production, left many collective farms with insufficient reserves of grain and seed. Failure to increase the supply of manufactured goods caused demobilization of enthusiasm in the villages. While cases of open rebellion were infrequent, many peasants in 1932 resorted to the more effective weapon of passive resistance, with which they hoped to defeat collectivization. They either refused to sow more grain than was necessary for their own use or, if sowing had already taken place, allowed the fields to run wild with weeds and neglected to gather the harvest, which was often left to rot in the open. Others stealthily harvested the grain, hiding it where it would escape the vigilance of government collectors, or looted state granaries. The 1932 harvest was consequently poor both in quantity and quality, although weather conditions had been more favorable than in 1931. Most disturbing of all, the traditionally rich grain regions of the Ukraine and the North Caucasus made a particularly bad record.

Confronted by the necessity of completing the 1932 grain collections—a necessity rendered all the more urgent by fear of war in the Far East—the government rigidly enforced its contracts with collective farms. Not only did it deprive recalcitrant peasants of both grain and seed, but in some districts obliged collectives which had already fulfilled their quota to make up for their neighbors' deficiencies. The bitterness created by these measures was almost invariably attributed to the work of class enemies, and in a new wave of repression many peasants accused of sabotage were exiled from the Ukraine and the North Caucasus to the northern regions. Others, suffering from shortage of food, emigrated from their villages to the cities, where many joined the ranks of beggars. Undernourishment and overcrowding caused the outbreak of various diseases, including typhus. While no trustworthy figures are available, some estimates place the loss of life during that "naked year" at from one to four million.<sup>65</sup>

65. For accounts of eye-witnesses who visited the Russian countryside after September 1933—when the ban previously imposed on foreign correspondents was lifted—cf. W. H. Chamberlin, *Russia's Iron Age* (Boston, Little, Brown, 1936); and Walter Duranty, *I Write as I Please* (New York, Simon & Schuster, 1935). Commenting on the drastic law of August 7, 1932 against thieves and embezzlers of "socialist property," under which peasants had been shot or exiled for stealing grain, the State Prosecutor, Andrey Vishinsky, admitted on December 6, 1937 that many innocent people had been executed during the collectivization period. He blamed these excesses on "followers of Trotzky and Bukharin" who, he charged, had tried to discredit Soviet justice by shooting people who stole or em-

The government, aware that the passive resistance of the peasants threatened the success of collectivization, had meanwhile adopted two important measures in the winter of 1933.<sup>66-67</sup> It created political sections (*politotdel*) in the machine and tractor stations, which are the backbone of collective agriculture; and decreed that grain should henceforth be collected from the peasants in the form of a grain tax, fixed before sowing.

The political sections, recruited from the Communist party, were charged with the task of reorganizing inefficient collective farms, weeding out farm bureaucracy, and extirpating socially hostile elements. They were instructed to use persuasion rather than coercion, and concentrated their efforts on strengthening labor discipline in the collectives. On November 28, 1934 the government announced that the political sections had successfully fulfilled the task assigned to them, and would be assimilated with Communist party organs in the villages. The principal achievement of the sections was the establishment of strict government control over collective agriculture through the machine and tractor stations, whose number increased from 158 in 1932 to 5,819 in 1937. These stations, which according to a decree of March 1938 are to be financed exclusively by the government,<sup>68</sup> monopolize the distribution of heavy farm machinery.<sup>69</sup> The collectives—far more dependent on machinery than individual peasants—are thus brought directly under government control through the stations, from which they must rent their tractors, plows, and other heavy farm implements.

While the political sections were bringing agriculture under state control, the establishment of a fixed grain tax payable in kind was intended to placate the peasants and arouse their incentive. Under the present arrangement, once the collective farm has fulfilled its tax obligations to the state, and has created seed reserves, it must distribute the surplus grain among its members according to the number of "labor days" performed by each,

bezzled on a small scale "due to exceptional circumstances"—a phrase regarded as a euphemism for hunger. *Christian Science Monitor*, December 7, 1937.

66-67. Chamberlin, *Russia's Iron Age*, cited, p. 72.

68. For text of decree, cf. *Izvestia*, March 17, 1938. The shift to direct financing of machine and tractor stations by the government was occasioned by financial complications—blamed on "wreckers"—which revealed that by August 1937 the collective farms owed the stations over 240 million rubles. *Planovoye Khozyastvo* (Planned Economy), 1938, No. 2, p. 133.

69. It is estimated that at the end of 1937 the machine and tractor stations operated 367,000 tractors, 105,000 combines and harvesters, 62,000 trucks and automobiles, as well as heavy plows, seeders and other machines. *Christian Science Monitor*, March 17, 1938.

which are figured on a piecework basis. It is consequently to the advantage of the peasant to increase the production of the farm, and thereby his own share of the surplus. The members of the collective are then free to sell the grain so apportioned in the open market.

These two measures—of which the first strengthened the grip of the state over collective farming, while the second represented a concession to the peasants—combined with favorable weather and an adequate supply of agricultural machinery in assuring the success of the 1933 harvest. This harvest provided the country with an adequate food supply, as well as a surplus for export, and marked a victory for collectivization.

Today the 243,000 collective farms contain 93 per cent of all peasants, and occupy 99.1 per cent of the country's cultivated area.<sup>70</sup> The members of each collective are committed to its perpetuation in more than one sense. The younger generation of peasants has been won over to collective agriculture, which has abolished the ruinous and antiquated "strip" system; permitted large-scale utilization of machinery and application of modern agrarian methods; and revolutionized the formerly drab and empty lives of "dark" villages by introducing at least the rudiments of education, public health, and entertainment in the form of cinema and radio. At the same time, while members of collective farms are free to seek employment elsewhere—on state farms or in city factories—the collective farms themselves can no longer be dissolved. Under the 1936 constitution the state retains possession of the land, but grants its free use in perpetuity to the collective farms which occupy it.<sup>71</sup> This provision has been criticized as a camouflaged return to private group property. While it undoubtedly represents a concession to the desire of the peasants for control of agricultural production, it transforms the collective farms into permanent institutions, thus barring return to individual farming. The real issue is not the reappearance of individual property in land, but the extent to which the government will eventually succeed in transforming collective farms into institutions of the socialist state. On this issue the government may yet have to face another major struggle with the peasants.

Under the existing system the collective peasant, both on the farm and on the personal holdings he retains when he enters the *artel*, works more from considerations of self-interest than from conscious concern for the interests of socialist economy. If

70. *New York Herald Tribune*, April 21, 1938.

71. Article 8.

agricultural production continues to increase, and output of consumers' goods catches up with rapidly mounting demand, the collective peasant will be able to achieve the "easier and more joyous life" promised by Stalin. But expulsion from the farm for real or alleged misdeeds spells ruin for the collective farmer. A decree issued on April 20, 1938 by the Council of People's Commissars and the Central Committee of the Communist party makes it clear that the expelled peasant and his family are doomed to starvation. This decree excoriates party and government officials for callous and arbitrary treatment of collective farmers, many of whom have been expelled as "wreckers" without due cause, and thus deprived "of the means of subsistence."<sup>72</sup>

Not only did the government denounce arbitrary expulsion of peasants from collective farms but, in accordance with its usual practice of offering substantial concessions in the spring to encourage sowing, decreed that at least 60 per cent of the cash income of farms must be distributed among their members. The government contends that collective farm boards have been allotting excessive funds for administration purposes and capital improvements, with the result that in 1937 peasants in some regions had failed to obtain cash, while others had received not more than 28 or 30 per cent of their share.

While return to individual farming is made increasingly difficult, the lot of the country's two million individual farmers, hampered on all sides by government restrictions, is not such as to inspire envy. The absorption of existing farms into collectives is only a matter of time. A decree of April 20, 1938 called for strict collection of taxes in grain, meat and other foodstuffs from individual peasants; restored taxes on their horses which, it was asserted, had been rented to collective farms at excessively high rates; and accused individual peasants of seeking work on collective farms at wages higher than the earnings of collective farmers.<sup>73</sup>

Nor do large state farms, which numbered over 5,000 in 1937, offer a desirable alternative to collective farming.<sup>74</sup> These farms, first organized in 1919, were intended to serve as models of organization and production; supply the state with grain and foodstuffs still not available in sufficient quantities on collective and individual farms; and facilitate

72. For text of decree, cf. *Izvestia*, April 20, 1938.

73. For text of decree, cf. *ibid.*

74. For history and operation of state farms, cf. F. K. Galevius, *Sovhozy v Sisteme Sotsialisticheskovo Stroitelstva* (State Farms in the System of Socialist Construction) (Moscow, 1928); W. Ladejinsky, "Soviet State Farms I," *Political Science Quarterly*, March 1938, p. 60.

transition to socialized agriculture. Like factories, the state farms are owned and operated directly by the state, which hires agricultural workers, paid according to the quality and quantity of their work. In practice the state farms, administered by the Commissariat of State Farms through regional commissariats, have often proved neither efficient nor economically sound. Centralized control of state agriculture has resulted in harmful bureaucracy, which the government has sought to remedy by measures of decentralization. The size of state farms, reduced in 1928 from the "giants" of 200,000 acres to the still unwieldy maximum of 140,000,<sup>75</sup> has proved an obstacle to good management, while their tendency to specialize on some one product—livestock, grain, sugar, etc.—has prevented them from becoming self-supporting. The state farms, moreover, frequently employ seasonal labor,<sup>76</sup> which is inadequately trained, lacks interest in the success of the enterprise, and is dismissed at the end of the harvest, when it seeks work and food on neighboring collective farms.

In evaluating the development of agriculture under the first two Five-Year Plans, Soviet leaders believe they can point to tangible achievements. After years of stress and passive resistance, the vast majority of the peasants have acquiesced in collectivization. Individual property in land has been practically eliminated. Large-scale mechanized farming along scientific lines has replaced the un-economical "strip" system. Agricultural production, which had lagged far behind, is beginning to approximate the pace of industrial output. Reserves of livestock, decimated during the early years of collectivization, are being slowly rebuilt. The peasants are beginning to enjoy a higher standard of culture and material well-being. These developments, in the opinion of Soviet authorities, tend to reduce the age-old conflict between town and country, creating that "link" between peasants and industrial workers which Lenin had envisaged in 1917. Where good management exists, the collectives have succeeded in attaining a higher percentage of production than either individual or state farms. Most important of all, collectivization has made direct planning of agriculture possible, thus removing one of the great uncertainties of the post-revolutionary period.<sup>77</sup>

75. "Ob Organizatsii Novykh Sovkhozov" (Concerning the Organization of New State Farms), *Izvestia*, July 13, 1928.

76. In 1936 seasonal labor constituted 37 per cent of the labor force employed on state grain farms. Ladejinsky, "Soviet State Farms I," cited, p. 81.

77. V. I. Mezhlauk, "Fulfillment of the Second Five-Year Plan during 1933-1935," *Second Five-Year Plan*, cited, p. xv.

## DECLINE OF FOREIGN TRADE

The Soviet share in world trade, never large, has steadily declined from 2.5 per cent in 1931 to 1.3 per cent in 1936. The Soviet balance of trade for 1937 showed a surplus of 387,379,000 rubles,<sup>78</sup> which represented a marked increase over the small 1936 surplus of 6,569,000 rubles, but was still below the large export surpluses of previous years.<sup>79</sup> The reduced surpluses of 1936 and 1937 were due to the fact that, while the value of Soviet exports, consisting chiefly of raw materials, continued to decline on world markets, the value of Soviet imports, consisting chiefly of manufactured goods, showed a slight increase.

The Soviet Union continued to import primarily metal and metal products, machinery not yet manufactured by Soviet industry, and raw materials unavailable in the country. Its exports showed a tendency to substitute industrial articles of Soviet manufacture for the raw materials and agricultural products which once formed the bulk of Soviet exports. The principal items of Soviet export are timber and oil. The share of oil in total Soviet exports, however, has shown a marked decline since 1932, owing to larger internal consumption by industrial undertakings and mechanized agriculture.

Grain exports, which in 1935 had practically reached the high level of 1932, dropped again in 1936 and early 1937. In August 1937, when a bumper crop was reported, the Soviet Union resumed grain exports on a fairly large scale, but this item of export remains unstable. Germany and Italy, once the principal purchasers of Soviet grain, ceased to import it after 1935, when the two fascist countries expanded their programs of agricultural self-sufficiency.

Political realignments in Europe have altered the direction of Soviet trade, and have tended to divert Soviet purchases to the United States. Italy, which in 1934 was one of the principal sources of Soviet imports, sank to the bottom of the list by 1937; while Germany, which in 1934 occupied first place as a market for Soviet goods, now occupies fourth place, having yielded the lead to Britain, the United States and Belgium. The shrinkage of Soviet imports from Germany was temporarily checked by the granting of a 200-million Reichs-

marks credit for the purchase of additional German machinery. This credit, granted on April 9, 1935, was not much used until 1936 and early 1937. Should this credit be allowed to lapse, Soviet imports from Germany may decline even further. Germany, however, ranks second to the United States as a source of Soviet imports. Exports to Spain assumed impressive proportions in 1937, when Spain forged to sixth place as a market for Soviet goods.

Soviet trade with the United States—which now holds first place among exporters to the Soviet Union—increased considerably in value in 1936, when this country enjoyed a favorable trade surplus of \$12,900,000, and expanded further in 1937. According to notes exchanged by the two countries on July 13, 1935 and prolonged for another year in 1936, the Soviet Union undertook in each of those two years to place in the United States orders amounting to 30 million dollars.<sup>80</sup> This agreement was renewed for another year on August 4, 1937, when the Soviet government promised to increase its orders for 1937-1938 to 40 million dollars, in exchange for most-favored-nation treatment in the United States.<sup>81</sup> Actually, Soviet purchases of American goods totaled 75 million dollars in 1937, as compared with Soviet sales in this country valued at 27 million.<sup>82</sup>

Soviet exports to the United States consist principally of furs, manganese ore and anthracite. Imports from the United States during the past two years have shown increased purchases of machinery, metals and gasoline, believed to be for the use of the Soviet navy; and a sharp decline in the purchase of tractors, agricultural machinery and cotton, all of which are now being produced in the Soviet Union. Purchases of American cotton, valued at nearly 40 million dollars annually until 1930, ceased entirely in 1937 as a result of the successful cotton harvest in Central Asia. In 1936 Soviet exports of cotton were more than double its cotton imports.

The commercial indebtedness of the Soviet Union abroad has greatly decreased in recent years. A favorable foreign trade balance and increased gold production, which has permitted resumption of gold exports, have stabilized the country's financial position on world markets. It would be an exaggeration to say that the Soviet Union desires to establish a "closed" economic system. But the country's vast resources of raw materials, its rapidly de-

78. United States, Department of Commerce, "Foreign Trade of Soviet Union, January-December 1937," *Commerce Reports*, April 30, 1938, p. 398.

79. The Soviet Union had an export surplus of 642,350,000 rubles in 1933; 814,325,000 rubles in 1934; and 552,042,000 in 1935. Cf. *Vneshnya Torgovlya* (Soviet Foreign Trade), published by the People's Commissariat for Foreign Trade.

80. United States, Department of State, *Press Releases*, July 13, 1935, p. 45; *ibid.*, July 18, 1936, p. 35.

81. *Ibid.*, August 7, 1937, p. 73.

82. *Christian Science Monitor*, March 28, 1938.

veloping industrial system and its command of gold make it possible for the Soviet government, should such a course seem politically expedient, to reduce trade relations with the rest of the world to the vanishing point. The Soviet Union is in no danger, because of foreign debts or dependence on foreign capital, of becoming the vassal or colony of more highly developed industrial states.

#### BALANCE-SHEET OF SOVIET ECONOMY

Twenty years after the Bolshevik revolution, and ten years after the launching of the first Five-Year Plan, the Soviet Union is making an approach to some of the objectives which Lenin had hoped to achieve by planned economy. The Soviet government, at the expense of consumption, has laid a basis for development of modern industry and large-scale collective agriculture financed largely out of national savings. An attempt has been made to solve the post-revolutionary conflict between town and country by collectivizing agriculture and improving the material well-being of the peasants—especially in the Ukraine, directly menaced by Nazi plans of expansion to the East. And while the Soviet Union is yet far from attaining the production levels of the United States or the average living standards of Western countries, its output of some industrial products like steel and pig iron compares favorably with that of Germany.

This economic development has been achieved at heavy sacrifices in terms of individual life and liberty. Nor do the political and social conditions created by the Soviet system correspond at many points with Western concepts of Marxism. Far from withering away, the state under the dictatorship of Stalin and his associates has strengthened its power by steadily expanding the area of state control, and systematically exterminating all persons suspected of disloyalty to Stalin's theory of socialism. Complete socialization of the means of production has been accompanied by wide differentiations in individual incomes, creating the possibility of new class stratifications which may challenge the Soviet concept of classless society. Fuller satisfaction of consumers' needs has been postponed, and the standard of living, while rising, has remained far below the level it might have attained if the Soviet government had felt in a position to choose butter in preference to guns and machines. Yet the population, which remains ignorant of conditions outside Soviet borders, has already been given a foretaste of the material well-being it may enjoy in the future, provided the

country's economic system succeeds in meeting the demand for consumers' goods.

While government operation of industry, trade and agriculture in the Soviet Union has eliminated some of the costs inherent in the competitive capitalist system, it has revealed notable flaws which will have to be corrected if Soviet economy is to attain the standards of efficiency of advanced industrial countries. Economic plans have frequently been subordinated to abruptly changing political considerations, thus creating crises no less acute than those experienced under capitalism. State control has not yet insured a high degree of efficiency in labor organization; has not materially improved the quality of goods or reduced the cost of production according to plan; and has not raised the level of labor productivity to the extent anticipated by the government. It has been accompanied by a constant struggle against bureaucratic tendencies in the administration of socialist economy, which the government has blamed on "wrecking by enemies of the people."

Many of the difficulties revealed by the Soviet economic system have been the natural result of a large-scale effort to transform a backward country into a great industrial power within the shortest possible time. Nor is it certain that these difficulties would have been avoided by a more liberal economic system operating under similar international circumstances. The "newest new economic policy" forecast by Kaganovich indicates that the Soviet authorities, after a drastic political purge, are now frankly facing the need to reorganize industry and make another drive against bureaucracy. While the national stocktaking which accompanied the purge undoubtedly slowed down industrial production, it may eventually strengthen Soviet economy for war emergencies by emphasizing the necessity to avoid over-ambitious plans.

The process of trial and error through which the Soviet Union has passed during the past twenty years has often been wasteful and fraught with hardships for the people. It has exacted sacrifices which perhaps only Russians with their remarkable physical endurance and tradition of submission to authority could have borne without undue recrimination. Much of it could probably have been accomplished more efficiently and less painfully given a longer period of time. But Soviet leaders, always working under pressure, feel they have no time to lose; that Russia—no matter what the cost—must be set industrially on its feet before it is attacked by hostile states; and that if Stalin socialism can triumph today, it must under no circumstances be postponed until tomorrow.